

The opinion in support of the decision being entered today
was **not** written for publication in and
is **not** binding precedent of the Board.

Paper No. 19

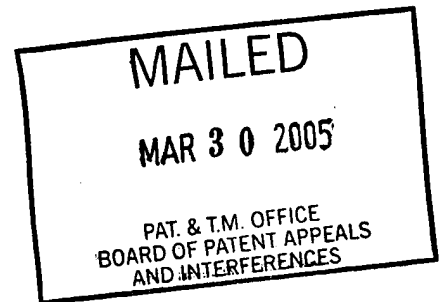
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RICHARD LOUIS ARNDT, TAM D. BUI, VAN HOA LEE,
DAVID LEE RANDALL, KIET ANH TRAN, and DAVID R. WILLOUGHBY

Appeal No. 2005-0009
Application No. 09/631,723

ON BRIEF



Before HAIRSTON, RUGGIERO, and NAPPI, **Administrative Patent Judges.**

NAPPI, **Administrative Patent Judge.**

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 of the final rejection of claims 1 through 21 which constitute all the claims remaining in the application. For the reasons stated *infra* we will not sustain the examiner's rejection of these claims.

THE INVENTION

The invention relates to a system for managing input/output drawers in a data processing system. A unique location identifier is assigned to each of the input/output drawers, and the unique location identifier is used by the operating

system to identify the drawers. When a new drawer is added to the system a new unique identifier is assigned to the drawer. See page 5 of appellants' specification. The unique location identifier is also used to create location codes for the nodes of the drawers. See page 15 of appellants' specification.

Claim 1 is representative of the invention and reproduced below:

1. A method of managing input/output drawers within a data processing system, the method comprising:

assigning a unique identifier to each of a plurality of input/output drawers;
and
storing the unique identifier in memory;

wherein the unique identifier is used by an operating system to identify the plurality of input/output drawers regardless of how the input/output drawers are interconnected by cables, such that physical addresses used when accessing devices contained within said plurality of input/output drawers do not change when reconfiguring at least one of said plurality input/output drawers within the data processing system by physical insertion, physical removal or physical rearrangement, wherein the physical addresses that do not change include physical addresses used when accessing devices contained within the reconfigured drawers.

THE REFERENCES

The references relied upon by the examiner are:

| | | |
|----------------------------|-----------|----------------|
| Sidhu et al. (Sidhu) | 5,884,322 | March 16, 1999 |
| Lortz et al. (Lortz) | 6,041,364 | March 21, 2000 |
| Berglund et al. (Berglund) | 6,044,411 | March 28, 2000 |

THE REJECTIONS AT ISSUE

Claims 1, 3, 8, 10, 15 and 17 stand rejected under 35 U.S.C. § 102 as being anticipated by Berglund. Claims 2, 5, 9, 12, 16, and 19 stand rejected under 35 U.S.C. § 103 as being obvious over Berglund in view of Sidhu. Claims 4, 6, 7, 11, 13, 14, 18, 20 and 21 stand rejected under 35 U.S.C. § 103 as being obvious over Berglund in view of Sidhu and Lortz. Throughout the opinion we make reference to the brief and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, appellants' arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

With full consideration being given to the subject matter on appeal, the examiner's rejections and the arguments of appellants and the examiner, for the reasons stated *infra* we will not sustain the examiner's rejection of claims 1, 3, 8, 10, 15 and 17 under 35 U.S.C. § 102 or the examiner's rejection of claims 2, 4 through 7, 9, 11 through 14, 16 and 18 through 21 under 35 U.S.C. § 103.

Appellants assert, on page 5 of the brief:

Berglund uses actual physical device location information when constructing its logical address mapping, the physical address used when accessing a device *do change* when the device is re-cabled to be at another physical location within the system, since the physical address used to access the device is comprised of it[']s physical enclosure/tower location information (Col. 4, lines 40-43) which would change when the device is re-cabled.

Appellants argue, on page 6 of the brief:

This [Berglund] is in contrast to the claimed invention, where techniques for identifying or accessing devices contained within the drawers *do not change* when the drawers are relocated to a different position on the system bus by re-cabling, since a unique identifier is used by the operating system to identify the drawers regardless of how the input/output drawers are interconnected by cable.

Further, appellants assert that Berglund, citing column 14, lines 23-27, teaches that not only does the physical address change when a component is relocated, but the logical address may also change. Appellants thus conclude (*id.*):

[I]t is shown that Berglund [*sic*, Berglund] does *not* teach the claimed feature of “*wherein the unique identifier is used by an operating system to identify the plurality of input/output drawers regardless of how the input/output drawers are interconnected by cables.*”

The examiner sets forth the rejection of claims 1, 3, 8, 10, 15 and 17, on pages 3 through 8 of the answer. On pages 3 and 4 of the answer, the examiner correlates the claim limitations to features of Berglund that the examiner asserts teach the limitations. On page 3 of the answer, the examiner equates the claimed “unique identifier” with Berglund’s “unique physical location address” and

the claimed “physical address” with Berglund’s “logical address.” On pages 3 and 4 of the answer, the examiner notes:

The term “physical address” should be interpreted as “unit addresses” since (1) the claim limitation “physical addresses used when accessing devices contained within said plurality of input/output drawers” has never been clearly defined in the original specification, and therefore (2) the subject matter “unit addresses”, which is defined in the Application, page 16, lines 16-20, is the only one subject matter to be appropriately interpretable as the claim language “physical address” since the unit addresses are used when accessing devices (i.e., PHB devices) contained within said plurality of input/output drawers (i.e., RIO drawers; See Application, page 16, lines 15-24). However, the subject matter “unit address” could not be understood with a plain meaning of physical addresses in the art, but should be considered as logical addresses in the art because the Application cites that a memory mapping is assigning system memory address ranges (viz., physical addresses) so that the unit address can be used by the host processors to access I/O devices within the drawer on page 17, lines 22-27.

Additionally, the examiner states on page 22 of the answer:

[C]laim 1 recites “said unique identifier is used by the operating system to identify said plurality of input/output drawers regardless of how said input/output drawers are interconnected by cable” in lines 5-6 and “physical addresses used when accessing devices contained within said plurality of input/output drawers” in lines 7-8. However, it does not claim any relationship between the subject matter “unique identifier” and the subject matter “physical address”. The Examiner doubts why it is necessary that the subject matter “physical addresses” do [sic] change if the subject matter “unique identifier” changes. According to the claim language, the subject matter “unique identifier” merely identifies said plurality of input/output drawers regardless of how said input/output drawers are interconnected by cable, and the subject matter “physical addresses” is used when accessing devices contained within said plurality of input/output drawers. Therefore, the Appellants’ [arguments] concerning of [sic] the relationship between Berglund’s “unique physical location address” and Berglund’s “physical addresses” is beyond the scope of the Appellants’ claimed invention.

Initially, we note that we disagree with the examiner’s comments concerning the limitation of “physical addresses,” the plain meaning of the term is

that it is an address identifying the physical location of a component. While the examiner is correct that appellants' specification does not use the term "physical address," the specification, on page 15 lines 20-21 discusses creating a "location code." We find that these location codes are appellants' claimed "physical addresses."

We disagree with the examiner that Berglund's logical addresses meet the claim limitation of "physical addresses." Independent claims 1, 8 and 15 all contain limitations that the physical addresses does not change when reconfiguring at least one of said plurality of input/output drawers within the data processing system. We find no teaching in Berglund that the "logical address" of components does not change when devices are re-configured and we concur with appellants that Berglund's disclosure on column 8, lines 42-52 and column 14, lines 23-29, suggest that the "logical address" changes when the system is reconfigured.

We note that the section of Berglund that the examiner relies upon to teach the "unique physical location address", column 7, lines 18-25, teaches two location addresses, the "unique physical location address" and the "unique location address." Berglund teaches that the "unique location address" identifies the physical location of the card slots on the back plane and that the address is pre-written into memory during manufacture. Thus, we find that the "unique location address" does not change when the configuration of the boards is changed and does meet the claimed "physical address."

However, we do not find any disclosure in Berglund, which would meet the claimed "unique identifier." The examiner, on page 3 of the answer, equates the "unique physical location address," described in Berglund column 7, lines 40-44 and 47, with the claimed "unique identifier." Claim 1 includes the limitations of "assigning a unique identifier to each of a plurality of input/output drawers" and "wherein the unique identifier is used by an operating system to identify the plurality of input/output drawers regardless of how the input/output drawers are interconnected by cables." We find that independent claims 8 and 15 contain similar limitations. Thus, we find that the scope of the independent claims includes a unique identifier which is assigned to each of the drawers and that the same identifier is used to identify the drawer regardless of how the drawers are interconnected by cables. We find that Berglund teaches that the "unique physical location address" is used by service personnel to locate components and the logical address is used by the operating system and that because it is used in this manner the "unique physical location address" necessarily changes when the backplane is relocated. (See, column 6, line 7 through column 7, line 11). Thus, we find that the "unique physical location address" of Berglund does not meet the claimed unique identifier for two reasons: a) because we find that Berglund teaches that "unique physical location address" changes when the backplane is relocated and b) because the "unique physical location address" is used by personnel to locate the backplane and not the operating system as claimed. We note that Berglund does teach an identifier of the backplane that

does not change with wiring, the VPD product identifier, described in column 9, lines 30-39. However, we do not find that Berglund teaches that the VPD product identifier is used by the operating system to identify the backplane. Accordingly, we will not sustain the examiner's rejection of claims 1, 3, 8, 10, 15 and 17 under 35 U.S.C. § 102.

The examiner rejects claims 2, 5, 9, 12, 16 and 19 under 35 U.S.C. § 103 as being obvious over Berglund and Sidhu, see pages 8 through 12 of the answer. On page 9 of the answer, the examiner states:

Berglund, discussed above, discloses all of the limitations of the claims [*sic*, claim] 2 except that [it] does not teach [the limitation] responsive to a determination that a new input/output drawer has been added to said data processing system, for assigning a new unique identifier to said new input/output drawer, wherein said new unique identifier is different from any of said unique identifiers previously assigned, such that each of said plurality of input/output drawers maintains the same unique identifier. Sidhu discloses a method and apparatus for creating and assigning unique identifiers for network entities and data base items in a networked computer system, wherein third instructions, responsive to a determination (See block 100 in Fig. 4) that a new input/output drawer (i.e., new server entity) had been added (i.e., installed) to said data processing system (i.e., networked computer system 10 of Fig. 1; See col. 10, lines 23-25), for assigning (See block 104 in Fig. 4) a new unique identifier

We disagree with the examiner. As stated *supra*, we do not find that Berglund teaches assigning a unique identifier as claimed in the independent claims. We find that Sidhu is directed to assigning unique identifiers to servers and not to input/output drawers of a data processing system as claimed. Thus, we fail to find that the combination of Berglund and Sidhu teaches the step of

assigning a unique identifier as claimed. Accordingly, we will not sustain the examiner's rejection of claims 2, 5, 9, 12, 16 and 19 under 35 U.S.C. § 103.


The examiner rejects claims 4, 6, 7, 11, 13, 14, 18, 20 and 21 under 35 U.S.C. § 103 as being obvious over Berglund in view of Sidhu and Lortz, see pages 13 through 15 of the answer. These claims all ultimately depend upon either independent claims 1, 8 or 15. As stated *supra*, we do not find that the combination of Berglund and Sidhu teaches the limitation of assigning unique identifiers to drawers as claimed. The examiner has not asserted, nor do we find that Lortz teaches assigning unique identifiers to drawers as claimed.


Accordingly, we will not sustain the examiner's rejection of claims 4, 6, 7, 11, 13, 14, 18, 20 and 21 under 35 U.S.C. § 103.


CONCLUSION

We will not sustain the examiner's rejection of claims 1, 3, 8, 10, 15 and 17 under 35 U.S.C. § 102 or the examiner's rejection of claims 2, 4 through 7, 9, 11 through 14, 16 and 18 through 21 under 35 U.S.C. § 103.

REVERSED


KENNETH W. HAIRSTON
Administrative Patent Judge


JOSEPH F. RUGGIERO
Administrative Patent Judge


ROBERT E. NAPPI
Administrative Patent Judge

BOARD OF PATENT APPEALS AND INTERFERENCES

REN/hh

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